TABLE D.

From 1 kilogramme pure C there will be obtained

	Theoretical pure Air-gas.	Theoretical Steam - a if Gas with pure CO.	Theoretical Steam - air Gas with pure COo.
Quantity of ga» obtained .	5-36 cubic metres	5*14 cubic metres	6*66 cubic metres
Steam decomposed by 1 kilo-gramme C.	—	0*193 kilo-gramme	2-0 kilo-grammes
Temperature of origin of gas.	Above 1,400° C.	1-150° C.	700° C.
Combustible value of gas per cubic metre.	1,063 calories	1,228 calories	977 calories
Sensible heat of gas .	2,700 „	2,078 „	1,858 „
Combustible value of gas .	5,693 „	6,322 „	6,507 „
Latent heat in the steam of products of combustion after combustion and con-densation of the steam appearing	—	no „	1,266 „
Efficiency of the producer taken on the total heat introduced	70-4 per cent.	77 per cent.	69*4 per cent.

The statement shows that by means of steam-air gas production, the gas volume which one can produce from a known quantity of fuel is able, on the contrary to air-gas production, to be well diminished, and the gaseous fuel thus be able to be made with more concentrated heat energy. Simultaneously the temperature of production will be reduced, and therefore it follows also the amount of sensible heat which the gas carries away from the producer, and thus the efficiency be increased. One easily perceives, however, also the limit up to which it is possible, since, in the production of steam-air gas, the steam addition will become so much increased, that formation of COa must result; thus the gas volume increases, and moreover there appears (at least according to the kind of calculation, employed) a new considerable source of loss thereby, in that water results from the combustion of H, which appears in the form of steam, and therefore carries with itself 600 calories per kilogramme in latent form. Hence the degree of efficiency of the producer will be reduced, finally, in the theoretical